INFORMATION RECEIVING SYSTEM, INFORMATION RECEIVING METHOD,

INFORMATION PROVIDING DEVICE, INFORMATION PROVIDING METHOD,

INFORMATION PROVIDING METHOD PROVIDING MEDIUM,

INFORMATION PROCESSING DEVICE, INFORMATION PROCESSING METHOD

AND INFORMATION PROCESSING METHOD PROVIDING MEDIUM

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

The present invention relates to an information receiving system, information receiving method, information providing devic ,
information providing method, information providing method
providing medium, information processing device, information
processing method and an information processing method providing
m dium, and more particularly, is suitably applied to the case of
capturing the desired provide information automatically from the
W b page on the Internet and handing it over to the application
software risen on the personal computer and registering it, for
example.

DESCRIPTION OF THE RELATED ART

Heretofore, in the computer network via Internet, there
exist multiple World Wide Web (WWW) servers on the network. And
th client can obtain th us r-desir d information by receiving
the W b pag provided by the WWW server.

More specifically, heretofore the point information regarding the specific place displayed on the Web page to be supplied from the WWW server has been captured into the client and r gistered and memorized connectioning to the map software ris n on the client.

In this case, the WWW server side, after putting the point information including at least the latitude, longitude, address and telephone numbers in the file and memorizing these in the hard disc, describes hyperlink on the file using the hyper text markup language (HTML) and holds the file.

The client displays the Web page whenever downloading th HTML file and analyzing by the Web browser. And when an anchor on th Web page displayed is clicked by the user, the client downloads the file of point information hyperlinked from the s rver and analyzes, and as well as registering the point information on the map displayed by the map software risen by itself and memorizing, displays the Icon connected to the point information.

In practice, in the map database called as "map server" (a trademark) and its display program, hyperlink to file itself including the point information such as

script

is described in the map server script.

H re, "/rdw1010/31.mps" in the HTML file shows th script "31.mps" existing in "rdw1010" directory of the server.

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Accordingly, when the "script" part marked up on the Web page is clicked, the client downloads the script "31.mps" and captures into the map software risen by itself.

However, in the WWW server of the computer network thus constructed, since all point information have to be put in file and stored in the hard disc, it has caused a problem that workload of the server has become large.

Moreover, since the client, after displaying the dialog, such as "execute download" once via the Web browser, downloads from Internet taking some communicating time corresponding to th volume of data when the anchor on the Web page is clicked, the processing time is required before registering the point information on the map displayed by the map software. And it created a problem that the registration processing of the point information could not be executed in real time.

SUMMARY OF THE INVENTION

In view of the foregoing, an object of this invention is to provide an information receiving system, an information receiving m thod, an information providing device, information providing m thod, an information providing method providing medium, an information processing method and an information processing method providing medium capable of receiving the provide information with further eas via network.

The foregoing obj ct and oth r objects of th inv ntion have

been achieved by the provision of an information receiving syst m;
in the case of transmitting various provide information formed
with the predetermined format responding to the transfer request
from the information providing device via the predetermined
network and receiving the information by the information
processing device and conducting the information processing, the
information providing device forms provide information by
d scribing the comment data readable by the information processing
device in the comment area set by the format according to th
program of the predetermined provider and transmits to the
information processing device via the network. And the information
processing device, receiving the provide information to be
transmitted via the network, analyzes according to the
predetermined analyzing program, and reading out the comment data
d scribed in the comment area, delivers it to the predetermined
application software and conducts the predetermined information
processing according to the application software.

Furthermore in the information receiving system and the
information receiving method according to the present invention,
since provide information formed by describing the comment data
with the format readable by the information processing device into
the scrip area is transmitted from the information providing
device to the information processing device, the provide
information r c ived by th information proc ssing devic is
analyzed according to the pr determin d analyzing program, and the

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comment data described in the comment area is read out and handed over to the predetermined application software, and the predetermined information processing is conducted according to th application software, the information processing device can immediately obtain the comment data and can capture into the predetermined software just by reading out the comment data of the comment area described by the information providing device in advance from the provide information received without downloading from the information providing device.

Furthermore, according to the present invention, in the case of providing various provide information formed with the predetermined format to the information processing device connected via the predetermined network responding to the transfer request from the information processing device, the provide information will be formed by describing the comment data with the format that the information processing device can read into the comment area set by the format according to the program of the predetermined provider side and the information will be transmitted to the information processing device via the network.

In the information providing device and the information providing method according to the present invention, since provid information will be formed by describing the comment data with th format readable by the information processing device into the comm nt ar a set with the pred termined format and the provide information will be transmitted to the information proc ssing

device via the network, the information processing device can obtain the comment data immediately and capture into the predetermined application software just by reading out the comm nt data of the comment area described by the information providing d vice from the provide information received without downloading from the information providing device.

Furthermore, according to the present invention, in the information providing method providing medium in which programs for supplying various provide information formed with the predetermined format to the information processing device connected via the predetermined network responding to the transfer request from the information processing device, makes the information providing device execute the programs, comprising th st ps of; forming providing information by describing the comm nt data with the format readable by the information processing device in the comment area set with the format according to the predetermined programs of the provider side and transmitting th provide information formed by the step of forming information to the information processing device via the network.

Since the information providing device forms provide information by describing the comment data with the format r adable by the information processing device in the comment ar a s t with the predetermined format according to the program m morized in the information providing method providing medium and by transmitting the provid information to the information

processing device via the network, the information processing

d vice can immediately obtain the comment data and capture into

the predetermined application software by just reading out the

comment data of the comment area described by the information

providing device in advance from the provide information receiv d

without downloading from the information providing device.

Furthermore, according to the present invention, various

provide information formed with the predetermined format are

transmitted from the information providing device responding to

th transfer request via the predetermined network and in the cas

of receiving the transmitted provide information and conducting

th information processing, the provide information formed by

describing the comment data of readable format in the comment area

s t with the format will be received via the network, the receiv d

information will be analyzed according to the predetermined

analyzing program, the comment data described in the comment area

will be read out, the comment data read out will be handed over to

th predetermined application software, and the predetermined

information processing will be conducted according to the

application software.

In the information processing device and the information

processing method according to the present invention, since

provide information in which comment data of readable format is

describ d in the comment ar a set with the predetermined format

will be r c iv d from th information providing device, the

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comment data of the comment area is read out from the provide information received and handed over to the predetermined application software and the predetermined information processing will be conducted according to the application software, the comment data can be obtained immediately and captured into the predetermined application software by just reading out the comment data of the comment area described by the information providing device in advance from the provide information received without downloading from the information providing device.

Furthermore, according to the present invention, in the information processing method providing medium in which programs for transmitting various information formed with the predetermin d format from the information providing device responding to th transfer request via the predetermined network and for receiving the transmitted information and conducting the information processing are memorized, and makes the information processing d vice execute the programs, comprising the steps of; receiving provide information formed by describing the comment data with readable format in the comment area set with the format via network, analyzing the provide information received by the step of receiving according to the analyzing program and reading out the comment data described in the comment area, and controlling for delivering the comment data read out by the step of analyzing to th pred t rmin d application software and for conducting the pr d t rmined information processing according to th application

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software.

According to the program memorized in the information
processing method providing medium, the information processing
d vice receives provide information formed by describing the
comment data with readable format in the comment area set with the
predetermined format via the network and analyzes these according
to the predetermined analyzing program, and reading out the
comment data described in the comment area, hands it over to the
predetermined application software and conducts the predetermined
information processing according to the application software. Thus,
the information processing device can immediately obtain the
comment data just by reading the comment data of the comment area
described by the information providing device in advance from the
provide information received without conducting download from the
information providing device and can capture into the
predetermined application software.

The nature, principle and utility of the invention will
become more apparent from the following detailed description when
read in conjunction with the accompanying drawings in which like
parts are designated by like reference numerals or characters.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings:

Fig. 1 is a bri f linear block diagram showing the
construction of a point information receiving system according to

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the present invention;

Fig. 2 is a block diagram showing the construction of the WWW server of the point information receiving system;

Fig. 3 is a brief linear perspective view showing the xternal construction of a client of the point information r ceiving system;

Fig. 4 is a brief linear sketch showing the front construction of the main unit;

Fig. 5 is a left side sketch showing the state in which th display unit is closed to the main unit;

Fig. 6 is a right side sketch showing the state in which the display unit is opened 180 degree to the main unit;

Fig. 7 is a sketch showing the construction of bottom surface of the main unit;

Fig. 8 is a block diagram showing the circuit construction of client;

Fig. 9 is a brief linear diagram showing a map screen displayed on the liquid crystal display;

Fig. 10 is a brief linear diagram showing the top page of the point information retrieval home page;

Fig. 11 is a brief linear diagram showing the display contents of the retrieval result screen;

Fig. 12 is a brief linear diagram showing the data construction of the HTML file formed by the WWW server;

Fig. 13 is a bri f linear diagram showing the display

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contents of the Web page;

Fig. 14 is a brief linear diagram showing the point information of the Web page input on the map screen; and

Fig. 15 is a flow chart showing the automatic capture processing procedure of the point information in the Web page.

DETAILED DESCRIPTION OF THE EMBODIMENT

Preferred embodiments of this invention will be describ d with reference to the accompanying drawings:

(1) General Construction of Map Information Receiving System

In Fig. 1, 100 generally shows a point information receiving system as the information receiving system according to the present invention. The World Wide Web (WWW) server 102 as the information providing device possessed by the Internet servic provider (hereinafter referred to as provider) 101 and the cli nt 103 as the information processing device are connected via Internet 104, and hyper text markup language (HTML) file to be supplied from the WWW server 3 will be received by the client 4 and being analyzed by the World Wide Web (WWW) browser, the Web page will be displayed on the screen.

(2) Construction of WWW Server

As shown in Fig. 2, the WWW server 102 is connected to Int rnet 104 via a router, and c ntral proc ssing unit (CPU) 106 r ceives a transfer requ st of the W b pag on the specific point

information from the client 103 via an interface 105 and a bus 110.

The CPU 106, reading out the HTML file forming program stored in the hard disc drive (HDD), rises it on the RAM 108, and after retrieving and reading out the specific point information file from the point information file database 109 according to th HTML file forming program, forms the HTML file based on the point information and transmits this to the client 103 via the interfac 105 and the router.

More specifically, when the transfer request of the point information is received from the client 103, the WWW server 102 reads out the specific information file from the point information file database 109 using common gateway interface (CGI) from that point and forms HTML file dynamically. Thus, it is unnecessary to form and memorize the HTML file on the specific point information in advance.

Accordingly, since it is not required for the WWW server 102 to form and hold the HTML file on all point information in advance, such as memory device to hold the HTML file becomes unnecessary and workload of the server itself will be decreased.

(3) Construction of Client

Next, the construction of the client 103 in the point information receiving system 100 will be explained in the following paragraphs.

(3-1) Ext rnal Construction of Cli nt

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As shown in Fig. 3, the client 103 is formed of a portabl personal computer device, smaller than B-5 size, and comprises a main body 2 and a display unit 3 attached open/close free to the main body 2.

The main body 2 is equipped with multiple operation keys 4 for inputting various characters, symbols and numbers, a stick type pointing device 5 to operate when moving the cursor to b input displayed on the display unit 3, a build-in speaker 6, a shutter button 7 to operate when shooting images by the charg coupled device (CCD) camera 23 provided in the display unit 3.

In front of the display unit 3, a liquid crystal display (LCD) 21 is provided and an image pickup unit 22 equipped with a CCD camera 23 attached to the display unit 3 rotation free at th front center upper edge part.

More specifically, the image pick-up unit 22 can conduct the positioning to the optional position by rotating within the angle range of 180° between the front direction and rear direction of the display unit 3. Moreover, as shown in Fig. 4, an adjusting ring 25 to conduct the focus adjustment of the CCD camera 23 is provided in the image pick-up unit 22.

Furthermore, in front of the display unit 3 (Fig. 3) a microphone 24 is provided on the left side of the image pick-up unit 22, and sounds can be also obtained from the back side (Fig. 7) of the display unit 3 via the microphone 24.

Furthermore, at th lower dge c nter part of the front

surface in the display unit 3, a power source lamp PL formed of

light emitting diode (LED), a buttery lamp BL, a message lamp ML

and other lamps corresponding to various other uses are provided.

Furthermore, at the upper center part of the display unit 3,

a hook 13 is provided on the left side of the microphone 24, and a

hole 8 is provided on the predetermined position of the main unit

2 corresponding to the hook 13. And when the display unit 3 is

closed covering the main unit 2, the hook 13 is connected to the

hole 8 and locked.

As shown in Fig. 4, a slide lever 9 is provided in front of

the main unit 2. And by sliding the slide lever 9 in the direction

shown by an arrow along the front, locked condition of the hook 13

connected with the hole 8 will be released and the display unit 3

can be opened with respect to the main unit 2.

Furthermore, in front of the main unit 2, a programmable

power key (PPK key) 10 for putting the electric source on and

rising the predetermined application software (hereinafter

referred to as application) by only one button operation and for

 xecuting a series of operations preset is provided at the left

edge part, and multiple air aspiration holes 11 are provided at

the right edge part.

On the left side surface of the main unit 2, as shown in Fig.

6, a sliding type electric source switch 40, a 4-pin compatibl

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terminal 41, universal serial bus (USB) terminal 42, a microphone

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input terminal 43, a headphone terminal 44 and an infrared port 45 compliant with the infrared data association (IrDA) are provid d.

On the right side surface of the main unit 2, as shown in Fig. 6, an air exhausting hole 12 is provided. And a PC card slot 13 for inserting personal computer memory card international association (PCMCIA) card (hereinafter referred to as PC card) is provided on the right side of the air exhausting hole 12.

Moreover, on the bottom surface of the main unit 2, as shown in Fig. 7, a cover 26 to cover the opening 25 for attaching an xpansion memory and a hook inserting hole 48 for releasing th locking hook of the cover 26 are provided.

(3-2) Circuit Construction of Client

As shown in Fig. 8, in the main unit 2 of the client 103, a c ntral processing unit (CPU) 52, a personal computer (PC) card slot 13, random access memory (RAM) 54, a graphics processing circuit 55 for forming images to be displayed on the liquid crystal display 21 of the display unit 3, and an IEEE interface 56 connected to the IEEE1394 terminal 41 for inputting digital data connecting to other computer devices and external equipments are connected to a peripheral component interconnect (PCI) bus 51 of the starting sequence control unit 83.

The CPU 52 is a controller to generally control various functions of the main unit 2, and it can execute various functions by x cuting various programs loaded on the RAM 54.

The PCI bus 51 is conn cted to an industrial standard

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architecture (ISA) bus 59, and a hard disc drive 60, In/Out (I/O) controller 61, a keyboard controller 62, a pointing device controller 63, a sound chip 64, a LCD controller 65, a modem 66 and USB interface 67 are connected to the ISA bus 59.

At this point, the keyboard controller 62 controls the input of control signal according to pressing down the operation key 4 (Fig. 3). And the pointing device controller 63 controls the input of control signal by the stick type pointing device 5 (Fig. 3).

Furthermore, the sound chip 64 captures sound input from the microphone 24 (Fig. 3) or supplies sound signal to a built-in speaker 6 (Fig. 3). The modem 66 is connected to the WWW server 102 of the provider 101 via the public telephone circuit 90 and Internet 104. In this connection, the USB interface 67 is connected to the USB terminal 42 and connects the peripheral equipments such as the USB mouse and the floppy disk drive.

In the hard disc drive 60, a capture software 60A, a digital map software 60B and an operating system (OS) 60C formed of Window 98 (trademark), and an image automatic capture software 60D to capture image data photographed by the CCD camera 23 automatically and various application softwares (not shown in Fig.) are stored in the hard disc drive 60 and will be read out by the CPU 52 as required and loaded on the RAM 54.

The I/O controller 61 comprises an I/O interface 69, a CPU 70, and a r ad only m mory (ROM) 71 formed of electrically erasable and programmabl r ad only m mory (EEPROM) and a RAM 72

which are connected to each other, and the present time is constantly supplied by the Real-Time Clock (RTC) 81.

A basic input/output system (BIOS) 73, a wakeup program 74, a key input monitor program 75 and a LED control program 76 are stored in the ROM 71 of the I/O controller 61, and the RAM 72 is quipped with a key input status register 77, set time register 78, LED control register 79 and a key compatible application register 80.

The key input status register 77 stored in the RAM 72 can store the operation key flag, and the CPU 70 monitors whether the one-touch operation PPK key 10 (Fig. 4) is pressed or not based on the key input monitor program 75, and when the PPK key 10 is pressed down, the CPU 70 stores the operation key flag in the key input status register 77.

Furthermore, the setting time register 78 can store time information, the start time set optionally by the user in advanc . And the CPU 70 detects whether the current time to be supplied from the RTC 81 becomes the optionally set start time or not bas d on the wakeup program 74 and when it becomes the start time, the CPU 70 executes the predetermined processing.

Furthermore, the key compatible application register 80 m morizes the relationship between the PPK key 10, the operation key 4 formed of multiple combinations and the application to b started corr sponding to the PPK k y 10 and the preset combination of op ration key 4. And wh n th PPK key 10 or the pr set combin d

op ration key 4 is pressed, the CPU 70 transmits the control data for starting the pertinent application to the CPU 52 via the ISA bus 59 and the PCI bus 51, and the CPU 52 starts the application software according to the control data.

Furthermore, when the application software memorized in the key compatible application register 80 is started and the op ration terminates, the LED control register 79 stores the end flag, and when the CPU 70 detects that the end flag is stored in th LED control register 79 based on the LED control program 76, it lights up the message lamp ML.

In this connection, when the power source switch 40 is pr ssed, the LED control register 79 stores a power source flag, and when the main unit 2 functions by the power source voltage to b supplied from the battery, the LED control register 79 stores battery flag. Accordingly, when the CPU 70 detects that the pow r source flag or the battery flag is stored based on the LED control program, it lights up the electric power source lamp PL and the battery lamp BL.

Here, since the backup battery 82 is connected to the I/O controller 61, each data of the key input status register 77, th setting time register 78, the LED control register 79 and the key-compatible application register 80 of the RAM 72 can be held even wh n the power source switch 40 of the main unit 2 is off condition and the l ctric pow r is not supplied from the power source (not shown in Fig.).

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Furthermore, the reverse switch 88 connected to the I/O controller 61 is put ON when the image pick-up unit 22 (Fig 3) is turned 180° in the direction of photographing the reversed side of th liquid crystal display 21 of the display unit 3, and informs th CPU 70 of this condition. Moreover, PPK key 10 also informs th CPU 70 of that condition as in the case when the reverse switch 88 is pressed.

Moreover, when the shutter button 7 provided on the upper surface of the main unit 2 is half-pressed, the half-press switch 86 is on and informs the CPU 70 of the I/O controller 61 of this condition. And when the shutter button 7 is full pressed, th full-press switch 87 is on and informs the CPU 70 of the I/O controller 61 of this condition.

More specifically, when the user presses the shutter button 7 and becomes half-pressed state under the condition in which the capture software 60A of the hard disc drive 60 is started, the CPU 70 of the I/O controller 61 enters the still picture mode, and x cutes freeze of the still picture by controlling the CCD camera 23. And when it becomes the full-pressed condition, the CPU 70 captures the frozen still image data and transmits this to the data processing unit 85.

On the other hand, when it enters the animated picture mode not rising the capture software 60A, the CPU 70 of the I/O controll r 61 captures the animated pictures up to 60 seconds at th maximum and transmits this to the data processing unit 85.

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Furthermore, the I/O controller 61 controls the graphics processing circuit 55 connected to the PCI bus 51. And after conducting the predetermined data processing to the image data formed of still picture or animated picture captured by the CCD camera 23 at the data processing unit 85, the I/O controller 61 enters this into the graphics processing circuit 55.

The graphics processing circuit 55, after storing the image data supplied in the built-in video random access memory (VRAM) 55A and reading it out as required, transmits to the LCD controller 65 and stores in the hard disc drive 60 as occasion d mands.

The LCD controller 65, as well as controlling the back light 84 of the display unit 3 and lighting it up from behind the liquid crystal display 21, outputs image data supplied from the graphics processing circuit 55 to the liquid crystal display 21 and displays this on the display.

On the other hand, in the case where the digital map software 60B read out from the hard disc drive 60 is risen on th RAM 54, the CPU 52 transmits the map data based on the digital map software 60B to the graphics processing circuit 55.

At this point, the graphics processing circuit 55 forms map image data to display on the liquid crystal display 21 based on the map data supplied and stores in the VRAM 55A, and reading these out wh n r quired, transmits to the LCD controller 65.

With this arrang ment, the LCD controller 65 displays th

map picture onto the liquid crystal display 21 of the display unit 3 based on the map image data supplied from the graphics processing circuit 55.

Furthermore, the PC card slot 13 connected to the PCI bus 51 will be attached via the PC card (not shown in Fig.) as required when adding the optional function and to receive data from the CPU 52 via the PC card. For example, when PCMCIA type global positioning system (GPS) card 57 is attached to the PC card slot 13, radio waves from the GPS satellite will be received by the GPS antenna 58 connected to the GPS card 57 and the present positioning data can be obtained.

Thus, the GPS card 57 transmits the current positioning data (latitude data, longitude data and altitude data) received through the GPS antenna 58 to the CPU 52 via the PCI bus 51.

In this case, the CPU 52 transmits the present positioning data to the graphics processing circuit 55, and after forming an arrow mark Icon showing the present position based on the curr nt positioning data by the graphics processing circuit 55, displays an arrow mark Icon overlapping onto the map image of the liquid crystal display 21 via the LCD controller 65.

With this arrangement, the liquid crystal display 21 can display the arrow mark ICON moving on the map image based on the positioning data detected by the GPS card 57.

(4) Automatic Capture of Point Information sp cified by W b Page

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Next, in the point information receiving system 100, the processing that automatically capturing the point information on the Web page supplied from the WWW server 102 to the client 103 into the digital map software 60B and registering will be described in detail in the following paragraphs.

In practice, the client 103, by rising the digital map software 60B after reading it out from the hard disc drive 60 on the RAM 54 by the CPU 52 (Fig. 8), and controlling the graphics processing circuit 55 and the LCD controller 65, displays a map screen 120 as shown in Fig. 9 on the liquid crystal display 21 of the display unit 3. Here, the map of the user desired area selected is displayed.

If a help button 121 on the map screen 120 is selected by the user, the CPU 52 displays the predetermined dialog box 122 right below the help button 121. In this dialog box 122, in addition to the selection buttons for using the digital map software and key operation guide, the selection buttons of the digital map software home page and the point information detection home page to detect the point information are displayed.

If the selection button of point information detection home page is clicked from the dialog box 122 displayed on the map screen 120, the CPU 52 accesses to the WWW server 102 of the provider 101 via the telephone circuit 90 and Internet 104 by the mod m 66, receiv s the point information d tection home page, and displays the top pag 125 of th point information detection hom

page on the liquid crystal display 21 as shown in Fig. 10.

In the top page 125 of the point information detection home page, the place name and key word for detecting the desired point information can be entered into the detection condition input area 126, and when the detection button 127 is clicked after the d tection condition is entered by the user, the CPU 52 transmits th detection condition data to the WWW server 102 of the provider 101.

The WWW server 102 executes the detection processing based on the detection condition data supplied from the client 103 and r turns the detection result to the client 103.

The client 103, after receiving the detection result from the WWW server 102, displays the detection result screen 128 as shown in Fig. 11 on the liquid crystal display 21 by the control of the CPU 52. In this detection result screen 128, the plural number of Roumen shops corresponding to the detection condition input by the user (in this case, the place name is Yokohama City, and the key word is Roumen). And if the number 2 anchor "Roum n, Kamakura" is clicked from among these user desired shop names, the CPU 52 conducts the transfer request of the Web page showing d tailed contents on the number 2 shop to the WWW server 102 of the provider 101.

Upon receiving the transfer request from the client 103, the WWW s rv r 102 (Fig. 2) reads out the HTML file forming program of th hard disc driv 107, and r ading out the point information

file on the number 2 shop specified according to the HTML file forming program from the point information file database 109, forms HTML file actively and returns this to the client 103.

At this point, the data construction of the HYML file form d by the WWW server 102 will be described referring to Fig. 12. This HYML file is divided into the display data describing area R1, the object tag describing area R2 and the comment tag describing ar a R3.

In the display data describing area R1, display data r garding the point information showing the location and details of stores are described by the HTML tag and being analyzed by th WWW browser (Internet explorer (trademark)) attached to the OS (Window 98 (trademark)) 60C of the client 103 and displayed on th liquid crystal display 21 as the normal Web page.

The data to embed the auxiliary program to realize the processing that is difficult to conduct by the HTML on the WWW browser (such as ActiveX control (trademark) is described in th object tag describing area R2, and of these the start button of the auxiliary program (to be described later) corresponding to th class ID (CLASSID) will be displayed on the specified area of th W b page.

Here, the auxiliary program is arranged to start on the WWW browser of the client 103, and this is an object (program) install d in advanc accompanied with the digital map software 60B stored in th hard disc of the hard disc drive 60.

The format that the CPU 52 of the client 103 can read out according to the supplemental program when the capture button displayed on the Web page is clicked, i.e., the point information using the HTML comment tag is described in the comment tag describing area R3. And here, contents are the same as those of th display data described in the display data describing area R1 on the location and details of the shop.

However, in the case where the capture button displayed on th Web page is not clicked, the point information of the store described in the comment tag describing area R3 would not be r ad out by the CPU 52 normally but it is skipped.

Moreover, as the detailed content of the point information described in the comment tag describing area R3 is the same as shown in the normal Web page. Moreover, the map data regarding th latitude and longitude of the store described as "POSITION = 127522880:502585147", and category of the store described as "CATEGORYCODE = 1" (in this case, equivalent to "gourmet spot") are included.

In practice, when the HTML file of this data construction is transmitted from the WWW server 102 to the client 103 and analyz d by the WWW browser of the client 103, Web page as shown in Fig. 13 will be displayed on the liquid crystal display 21.

Web page 130 is detailed page of the store selected by the us r from the detection result screen 128. A still picture 151 formed by th pictur of th shop "Roumen Kamakura" select d, th

d tailed information 152 such as address, telephone number, FAX, service hour and day off, and comment of the shop 153 are displayed based on the display data of the display data describing ar a R1 and also the start button 131 of the auxiliary program is displayed on the predetermined area of the lower left part.

At this point, the auxiliary program is risen on the RAM 54 at the time point when the Web page 130 is displayed on the liquid crystal display 21.

In this Web page 130, in the case of registering the point information on the map screen 120 to be displayed by the digital map software 60B after the user confirms the detailed contents of th store, click the start button 131.

Thus, in the client 103, the CPU 52 reads out the point information of the store described in the comment tag describing ar a R3 based on the auxiliary program risen on the RAM 54 and hands over the point information to the digital map software 60B.

At this point, the CPU 52 rises a capture flag showing that it handed over the point information to the digital map software 60B. And by confirming the condition of capture flag even when the start button 131 is clicked again, it can prevent delivering the point information to the digital map software 60B again.

At the same time, the CPU 52 changes the color of the edge of start button 131 corresponding to the condition of capture flag. And when it rises a capture flag, the CPU 52 changes th color of the dge of start button 131 to r d and displays this. Thus, the

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client 103, by changing the color to red and displaying the edge of the start button 131, makes the user recognize that the point information has been handed over to the digital map software 60B by clicking the start button 131.

Then, as shown in Fig. 14, the client 103 displays the us r point Icon 135 with the predetermined mark corresponding to the category code on the predetermined position of the map screen 120 based on the map data regarding the latitude and longitude of the shop described as "POSITION = 127522830:502585147" (Fig. 12) from the point information of the comment tag describing area R3 r ad out by the CPU 52 according to the auxiliary program. That is, in the map screen 120, the shop "Roumen Kamakura" exists on the position displayed by the user point Icon 135.

In this connection, the map data regarding the latitude and longitude are converted with the predetermined format displayable by the digital map software 60B, and these are different from the actual latitude and longitude data.

At the same time, the client 103 pasts and displays the still picture 151 formed by the shop photo of "Roumen Kamakura" onto the still picture display area 138 of "comment/picture" column 137 in the users point registration screen 136 displayed on the left side area of the map screen 120 based on the digital map software 60B according to the point information, and also displays th comment 153 from the shop on the comment column 139.

Furth rmor , at this moment, the client 103 st res the point

information read out from the comment tag describing area R3 into the hard disc drive 60 corresponding to the users point Icon 135.

With this arrangement, when the users point Icon 135 is clicked, the client 103 can read out the point information m morized corresponding to the users point Icon 135 based on the control of the CPU 52 and can display the users point registration screen 136 on which display picture 151 and comment 153 are past d.

In this connection, in the users point registration scre n 136, "users point" showing the position set by the user is automatically displayed on the command panel 140 and "Roumen Kamakura" showing the name of shop is automatically displayed on the title panel 141. And moreover, "gourmet spot" showing the category corresponding to the category code is automatically displayed on the category panel 142 and the users point Icon 135 formed of a picture of a knife and fork corresponding to "gourm t spot" of the category code is automatically displayed on the Icon display panel 143.

Then next, the automatic capture processing procedure for r gistering the point information of the Web page displayed n the liquid crystal display 21 by the CPU 52 of the client 103 corresponding to the position on the map screen 120 displayed by the digital map software 60B will be explained in the following paragraphs referring to a flow chart of Fig. 15.

The CPU 52 of the cli nt 103, ent ring from the start step of Rt 1, moves to th step SP1. At the step SP1, th CPU 52

displays Web page 130 showing the point information of the stor

selected by the user on the liquid crystal display 21 based on the

display data described in the display data describing area R1 of

HTML file, and moves to the following step SP2.

At the step SP2, the CPU 52, as well as displaying the start

button 131 corresponding to the auxiliary program on the

predetermined position of the Web page 130 based on the data

d scribed in the object tag describing area Rt2 of the HTML fil ,

initializes the capture flag and moves to the following step SP3.

At the step SP3, the CPU 52 judges whether the start button

131 of the Web page 130 is clicked by the user or not. And if a

n gative result is obtained, this means that the start button 131

has not been clicked, and at this moment the CPU 52 returns to th

step SP3 and waits till the start button 131 is clicked.

On the other hand, if an affirmative result is obtained at

the step SP3, this means that the start button 131 is clicked by

the user, and at this moment the CPI 52 proceeds to the following

st p SP4.

At the step SP4, the CPU 52 executes the analyzing

processing onto the comment tag describing area R3 in the HTML

file by clicking the start button 131 and moves to the step SP5.

At the step SP5, the CPU 52 judges whether detailed cont nts

of the shop showing the point information is described in the

comm nt tag d scribing area R3 or not. At this point, if a

n gative r sult is obtain d, this m ans that the point information

of the store is not described in the comment tag describing area

R3 and at this moment the CPU 52 returns to the step SP3 and

r peats the processing described above.

On the other hand, if an affirmative result is obtained,

this shows that the point information of the store is described in

the comment tag description area R3, and at this moment the CPU 52

moves to the following step SP6.

At the step SP4, the CPU 52 judges whether the point

information showing detailed contents of the store described in

the comment tag describing area R3 has been already handed over to

the digital map software 60B or not based on the condition of

capture flag. At this point, if an affirmative result is obtain d,

this shows that the point information has been already handed over

to the digital map software 60B, and the CPU 52 proceeds to the

following step SP7.

At the step SP7, the CPU 52 executes the processing to

display the map screen 120 according to the digital map softwar

60B on the front screen of the liquid crystal display 21 and mov s

to the following step SP8.

At the step SP8, the CPU 52 displays the map screen 12 of

the area part on which the users point Icon 135 is registered and

r turns to the step SP3.

On the other hand, if a negative result is obtained at the

step SP6, this shows that the captur flag is not ris n and th

point information showing d tailed contents of th store has not

be n handed to the digital map software 60B, and at this mom nt, the CPU 52 moves to the following step SP9.

At the step SP9, the CPU 52 reads out the point information described in the comment tag describing area R3 according to the supplemental program and moves to the following step SP10.

At the step SP10, the CPU 52 delivers the point information read out from the comment tag describing area R3 to the digital map software 60B and moves to the following step SP11.

At the step SP11, the CPU 52 executes the processing to display the map screen 120 by the digital map software 60B on th top screen of the liquid crystal display 21 and moves to the n xt step SP12.

At the step SP12, the CPU 52 rises a capture flag since it delivered the point information to the digital map software 60B, and displays the users point Icon 135 on the position on the map screen 120 according to the latitude and longitude from the point information. And the CPU 52, as well as pasting and displaying the still picture formed by the picture of shop on the still picture display area 138 in the users point registration screen 136, displays the comment 153 of the shop on the comment column 139, and moves to the following step SP13. At this point, the CPU 52 stores the point information in the hard disc drive 60 corresponding to the users point Icon 135.

At th st p SP13, th CPU 52 d livers the point information r ad out from the comment tag d scribing ar a R3 to the digital

map software 60B. And since the registration processing of the users point Icon 135 is terminated, the CPU 52 after displaying the edge of the start button 131 in red, moves to the step SP3 and terminates the processing.

(5) Operation and Effects of the Embodiment

According to the foregoing construction, when Number 2 anchor (Roumen kamakura) is clicked from the detection result screen 128 (Fig. 11), the client 103 outputs a transfer request of th Web page 130 showing detailed contents of the shop click d to th WWW server 102.

Upon receipt of the transfer request from the client 103, the WWW server 102 reads out point information file of the shop specified from the point information file database 109 from that point and describing display data for displaying the Web page 130 onto the display data describing area R1, describes data for starting the auxiliary program and for displaying the start button 131 on the Web page 130. And by describing the point information to be read out by the CPU 52 of the client 103 according to the auxiliary program into the comment tag describing area R3, the WWW s rver 102 forms HTML file and transmits this to the client 103 which sent the transfer request.

Thus, the WWW server 102 forms the HTML file actively from the time point when it receiv s the transf r requ st from th client 103. Howev r, since the WWW s rver 102 describes the point

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information having the same contends as the display data d scrib d

in the display data describing area R1 into the comment tag

d scribing area R3 by using the HTML tag, the HTML file can be

formed easily and simply and at the same time, it becomes

unnecessary to form and store the point information file, the

workload for the server will be decreased.

The client 103, by receiving and analyzing the HTML file by

th WWW browser, displays Web page 130 showing detailed contents

of the shop requested the transmission to the liquid crystal

display 21.

When the start button 131 on the Web page 130 is clicked by

th user, the CPU 52 reads out point information described in the

comment tag describing area R3 according to the auxiliary program

and the client 103 delivers this to the digital map software 60B.

In the HTML file received by the client 103, the point

information to be delivered to the digital map software 60B is

described in the comment tag describing area R3 in advance, and

th point information of the comment tag describing area R3 will

b read out immediately according to the clip operation of the

start button 131.

Thus, the client 103 can read out the point information from

th comment tag describing area R3 of HTML file according t the

click operation of the start button 131 without downloading the

point information and can deliver th point information to th map

software 60B in r al time.

With the above arrangement, the client 103 displays the us rs point Icon 135 on the predetermined position on the map screen 120 based on the map data of point information, and pasting a still picture 151 of the shop picture onto the still picture display area 138 on the users point register screen 136, displays comments 153 from the shop in the comment column 139.

At the same time, the client 103 stores the point information read out from the comment tag describing area R3 in th hard disc drive 60 corresponding to the users point Icon 135.

In this connection, since the client 103 reads out the point information described in the comment tag describing area R3 and rises the capture flag when it is handed over to the digital map software 60B, the point information is prevented from being redelivered to the digital map software 60B when the start button 131 is re-clicked.

Furthermore, since the client 103 displays the edge of th start button 131 changing its color to red when it delivers th point information read out from the comment tag describing ar a R3 to the digital map software 60B, it makes the user recognize that the start button 131 is clicked and delivery of the point information has been conducted already.

According to the foregoing construction, since the point information receiving system 100 transmits the HTML file form d by d scribing th point information into th comment tag d scribing area R3 by the WWW s rv r 102 to the client 103 and analyz s the

HTML file received by the client 103 using the WWW browser, and
r ading out the point information described in the comment tag
d scribing area R3 according to the auxiliary program, delivers
this to the digital map software 60B, and as well as executing th
pr determined processing according to the digital map software 60B,
stores the point information in the hard disc drive 60; thus, th
point information displayed on the Web page can be automatically
captured and registered onto the predetermined position on the map
screen 120 to be displayed by the digital map software 60B
according to the click operation of the start button 131.

(6) Other Embodiments

        The embodiment described above has dealt with the case of
r ading out the point information showing detailed contents of th
shop described in the comment tag describing area R3 according to
th auxiliary program when the start button 131 of the Web page is
clicked by the CPU 52 of the client 103 and delivering this to the
digital map software 60B and registering the users point Icon 135
on the map screen 120. However, the present invention is not only
limited to this but also when the start button 131 of the Web pag
is clicked, the point information described in the comment tag
d scribing area R3 may be delivered to the digital map software
60B and set as the target value when conducting the route
s arching. In short, if the point information described in the
comment tag d scribing area R3 can b d liver d to the digital map

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software 60B when the start button 131 of the Web page is click d, various other processings corresponding to the digital map software 60B may be conducted. In such cases, the same effects as those of the above can be obtained.

Furthermore, the embodiment described above has dealt with the case of utilizing ActiveX control as the auxiliary program. However, the present invention is not only limited to this but also if the auxiliary program that can conduct the processing, that is difficult to be executed in the HTML, on the WWW brows r, various other auxiliary programs such as Java may be used as the auxiliary program.

Furthermore, the embodiment described above has dealt with th case of delivering the point information showing detailed contents of the shop described in the comment tag describing ar a R3 to the digital map software 60B based on the click operation of th start button 131. However, the present invention is not only limited to this but also music word data described in the comm nt tag describing area R3 may be delivered to the predetermined application based on the click operation of the start button 131 for example.

Moreover, the embodiment described above has dealt with th case of reading out the auxiliary program according to the class ID specified at the object tag describing area R2 from the hard disc drive 60 and r ading out the point information of the comm nt tag d scribing ar a R3 by the CPU 52 according to th auxiliary

program. However, the present invention is not only limited to this but also the auxiliary program may be downloaded from the WWW s rver 102 via the Internet based on the class ID specified at th object tag describing area R2 and the point information of the comment tag describing area R3 may be read out according to th auxiliary program.

Furthermore, the embodiment described above has dealt with th case of constructing the CPU 106 as the providing information forming means for forming HTML file as the provide information by describing point information as the comment data with the format that the client 103 can read out in the comment tag describing ar a R3 as the comment area according to the HTML file forming program as the program of the provider side, and the WWW server 102 as the information forming means by the interface 105 and router as the transmitting means for transmitting HTML file to th client 103 as the information processing device. However, the present invention is not only limited to this but also the information providing device may be constructed by various other information forming means and transmission means and various other comment data other than the point information may be transmitt d to the information processing device.

Furthermore, the embodiment described above has dealt with th case of forming the client 103 as the information processing devic by the mod m 66 as th receiving m ans for receiving the HTML fil as th providing information formed by describing th

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point information as the comment data with the format that the client 103 can read out into the comment tag describing area R3 as the comment area set by the HTML via the Internet as the network, th CPU 52 and RAM 54 as the analyzing means for analyzing the HTML file received according to the WWW browser and auxiliary program as the analyzing program and reading out the point information of the comment tag describing area R3 and the CPU 52 as the control means for delivering the point information to the digital map software 60B as the application software and conducting the predetermined registration processing according to th digital map software 60B. However, the present invention is not only limited to this but also the information processing d vice may be constructed by various other receiving means, analyzing means and control means. And various other comment data other than point information may be read out and delivered to various other application softwares and the predetermined processing may be conducted.

Moreover, the embodiment described above has dealt with th case where the HTML file forming program as the program of provider side is read out from the hard disc of the hard disc drive 107 as the information providing method recording medium in the WWW server 102 and is provided. However, the present invention is not only limited to this but also these may be provided by m ans of packag media such as compact disc-r ad only m mory (CD-ROM), digital versatil disc (DVD), semiconductor memory and

magnetic disc to be stored temporarily or permanently, local ar a
n twork, Internet and cabled and wireless communication media,
such as digital satellite broadcasting. And moreover, these may b
provided by other communication interface, such as router and
modem.

Furthermore, the embodiment described above has described
th case where the WWW browser and auxiliary program are read out
from the hard disc of the hard disc drive 60 as the information
processing method recording medium in the client 103 and provid d.
However, the present invention is not only limited to this but
also these may be provided by the package media, such as compact
disc-Read only memory (CD-ROM) and digital versatile disc (DVD),
semiconductor memory and magnetic disc to be stored temporarily or
permanently, local area network, Internet, cabled or wireless
communication media such as digital satellite broadcasting. And
moreover, these may be provided by other communication interface
such as router and modem.

According to the present invention as described above, sinc
providing information formed by describing the comment data
readable by the information processing device in the comment area
is transmitted from the information providing device to the
information processing device, the providing information received
by the information processing device is analyzed according to the
pred termined analyzing program, and the comment data described in
th comm nt ar a is r ad out and deliv red to the pred termined

application software, and the predetermined information proc ssing

is to be conducted according to the application software, the

comment data can be obtained immediately only by reading out the

comment data of the comment area described by the information

providing device in advance from the providing information

received at the information processing device without downloading

from the information providing device and can be captured into th

predetermined application software. And thereby, the information

r ceiving system and information receiving method capable of

receiving the provide information more easily via network can be

r alized.

Furthermore, according to the present invention, by forming

the provide information by describing comment data with the format

r adable by the information processing device into the comment

ar a set by the predetermined format and by transmitting the

information to the information processing device via network, the

comment data can be immediately obtained only by reading out th

comment data of the comment area described in advance by the

information providing device from the provide information received

at the information processing device without downloading from the

information providing device. And thus, an information providing

device and information providing method capable of conducting the

r ception of provide information more easily via network can b

obtained.

Furthermor , according to the present invention, by forming

the provide information by describing the comment data with the format that the information processing device can read in the comment area set with the predetermined format, and transmitting the provide information to the information processing device via network, the information processing device can immediately obtain th comment data and can input into the predetermined application software only by reading out the comment data of the comment area d scribed by the information providing device from the provide information received without downloading from the information providing device. And thereby, the information providing method providing medium capable of conducting the reception of provide information via network more easily can be realized.

Moreover, according to the present invention, since provid information in which comment data having the readable format is d scribed on the comment area set with the predetermined format is r ceived from the information providing device, the comment data of the comment area is read out from the provide information r ceived and delivered to the predetermined application software, and the predetermined information processing will be conducted according to the application software, the comment data can be obtained immediately and put into the predetermined application software just by reading out the comment data of the comment area described by the information providing device in advance from th provid information r c ived not downloading from the information providing d vic . And thus, an information proc ssing d vice and

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information processing method capable of conducting the reception

of provide information more easily via network can be realized.

Furthermore, according to the present invention, since the

information processing device receives the provide information

formed by describing the comment data with the readable format in

th comment area set with the predetermined format according to

th program memorized in the information processing method

providing medium and analyzes this according to the predetermined

program, and reading out the comment data described in the comment

ar a, hands it over to the predetermined application software and

conducts the predetermined information processing according to th

application software, the comment data can be obtained immediately

and can be put into the predetermined application software just by

r ading out the comment data of the comment area described by the

information providing device in advance from the provide

information received without downloading from the information

providing device. And thereby, an information processing method

providing medium capable of receiving the provide information via

the network more easily can be realized.

While there has been described in connection with preferred

 mbodiments of the invention, it will be obvious to those skill d

in the art that various changes and modifications may be aimed,

therefore, to cover in the appended claims all such changes and

modifications as fall within th tru spirit and scope of the

invention.